

Notice of Allowability

Application No.

09/674,635

Examiner

Alexis Wachtel

Applicant(s)

BALISKY, TODD ALAN

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1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amd proposed on 2-16-06.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Detailed Action

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The instant Examiner's amendment was proposed by Keith Tackett on Feb 16, 2006 and overcomes any outstanding objections and renders the pending claims allowable.

The application has been amended as follows:

1. (Currently Amended) A chemical control system for controlling the chemistry of a chemical solution having predetermined chemical constituents in a plating system, the chemical control system comprising:

a mix container for containing a plating solution delivered from said mix container;

a precision delivery arrangement for delivering a precise-predetermined quantum of a predetermined constituent of the plating solution to a selectable combination of said mix container, said hold container, or both ~~said mix container and said hold container;~~

a transfer pump for urging the plating solution to be transferred from said mix container to said hold container; ~~and;~~

a source of deionized water in communication with said mix container; and

a nitrogen gas source in communication with said source of deionized water for providing to said mix container a flow of nitrogen source gas to which has been added deionized water to form humidified nitrogen gas, the humidified nitrogen gas being humidified to a predetermined relative humidity with respect to the temperature of the plating solution in said mix container.

3. (Currently Amended) The chemical control system of claim 1, wherein said ~~nitrogen gas source~~ of deionized water comprises a column for containing the deionized water and releasing the humidified nitrogen gas, said column being in thermal communication with said mix ~~tank~~ container.

7. (Currently Amended) The chemical control system of claim 6, wherein said further nitrogen gas source comprises a further column for containing deionized water and releasing the humidified further nitrogen gas, said column being in thermal communication with said hold ~~tank~~ container.

12. (Currently Amended) The chemical control system of claim 11, wherein there is provided a further mix container, and said a precision delivery system is arranged to deliver a ~~precise~~ predetermined quantum of a predetermined constituent of the plating solution to each of said mix container and to said further mix container

14. (Currently Amended) The chemical control system of claim 11, wherein said source pump is configured to pump the predetermined constituent of the plating solution at a constituent flow rate in a range of approximately 100ml/min to 1.0l/min.

20. (Currently Amended) The chemical control system of claim 19, wherein said mix and hold pneumatic level sensors are arranged to provide a measurement along a

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predetermined length of the ~~respectively associated ones of~~ said mix and hold containers, respectively.

23. (Currently Amended) The chemical control system of claim 22, wherein said transfer pump is provided with a Teflon bellows made of Teflon polymer.

25. (Currently Amended) The chemical control system of claim 1, wherein there is further provided a chemical analyzer system that analyzes is adapted to analyze the plating solution in said mix container.


26. (Currently Amended) The chemical control system of claim 25, wherein said chemical analyzer system that analyzes the plating solution in said hold container

Allowable Subject Matter

2. Claim 1-26 are allowed.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Glenn Caldarola
Supervisory Patent Examiner
Art Unit 1700